

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method for encrypting a digital data stream in a transmission system that uses orthogonal codes for the modulation, wherein the method comprising:

a kth transmitter constructs~~constructing~~ a kth connection for the a kth digital data stream (d^(k)) by a kth transmitter,

for the encryption, mixing the digital data stream (d^(k)) of the transmitter is mixed with a spreading code that is assigned to this kth connection,

assigning different spreading codes (g₁^(k), g₂^(k) ... g_H^(k)) from a defined set (G_i) are assigned and

producing through the mixing a transmission signal (s^(k)) is produced~~through the mixing,~~

characterized in that~~wherein~~ the degree of encryption of the kth digital data stream (d^(k)) is increased during the kth connection through the an allocation of a sequence for the application of the different spreading codes (g₁^(k), g₂^(k) ... g_H^(k)) and/or a hop interval (l_{hop}) by the kth transmitter.

2. (Currently amended) [[A]] The method as claimed in claim 1, characterized in that a permutation function (S_i) defines~~further~~ comprising defining the sequence of the application of the content of a set of spreading codes (G_i) with a permutation function (S_i) by stating the position ({p_1, p_2 ... p_M}).

3. (Currently amended) A method for encrypting a digital data stream that is to be transmitted, wherein after the-a connection set-up, necessary parameters for the transmission and recovery are transmitted, characterized by the steps~~the method comprising:~~

communication of~~communicating~~ an encryption key (200) and thus:

establishment (210) of establishing a permutation function (S_i) that defines a sequence of the application of the content of a set of spreading codes,
establishment (220) of establishing a set (G_i) of spreading codes, and/or
establishment (230) of establishing a hop interval (I_{hop}),
wherein the last three steps mentioned (210, 220, 230) establishing a permutation function (S_i), the establishing a set (G_i) of spreading codes, and/or establishing a hop interval (I_{hop}) can be carried out in any order.

4. (Currently amended) A method for encrypting a digital data stream, characterized by the execution of the method comprising executing a first permutation procedure (400) which contains a loop with the following steps:

setting (410) of an interval (n) to "1";
waiting (420) for the end of a predefined hop interval (I_{hop});
increasing (430) the interval (n) by the value 1;
carrying out a comparison (440) to see whether the current value of the interval (n) is greater than the total number (M) of the elements of a permutation function (S_i) which states the positions of the spreading code (g_n) of a set (G_i) of spreading codes that is to be used for encrypting the digital data stream, wherein alternatively the following takes place:

if the comparison has a positive result:

resetting of the interval (n) to "1";

if the comparison has a negative result:

equating the current spreading code (g_n) with the spreading code (g_{p_n}) that stands at the position (p_n) stipulated by the permutation function (S_i).

5. (Currently amended) A device (1) for carrying out [[a]] the method as claimed in claim 1, characterized in that wherein the device has a first code generator (2) that creates the respectively current spreading code (g_n).

6. (Currently amended) A method for decoding a received digital data stream that was sent encrypted, characterized by the execution of the method comprising executing a second permutation procedure (800) that contains a loop with the following steps including:

setting (810) an interval (n) to "1";
waiting (820) for the end of a predefined hop interval (I_{hop});
increasing (830) the interval (n) by the value 1;
carrying out a comparison (840) to see whether the current value of the interval (n) is greater than the total number (M) of the elements of a permutation function (S_i) which states the positions of the spreading code (g_n) of a set (G_i) of spreading codes that is to be used for decoding the encrypted digital data stream, wherein alternatively the following takes place:

if the comparison has a positive result:

resetting of the interval (n) to "1";

if the comparison has a negative result:

equating the current spreading code (g_n) with the spreading code (g_{p_n}) that stands at the position (p_n) stipulated by the permutation function (S_i).

7. (Currently amended) A device (3) for carrying out [[a]] the method as claimed in claim 6, characterized in that wherein the device (3) has a second code generator (4) that produces the current spreading code (g_n).

8. (Currently amended) A transmission system that uses orthogonal codes for the modulation, with a first device for encrypting a digital data stream, in particular a device (1) as claimed in claim 5, wherein the digital data stream ($d^{(k)}$) is mixed with a spreading code, and with a second device for decoding a digital data stream that was sent encrypted, characterized by the execution of wherein the second device executes a second permutation procedure (800) that contains a loop with the following steps:

setting (810) an interval (n) to "1";

waiting (820) for the end of a predefined hop interval (I_{hop});

increasing (830) the interval (n) by the value 1;
carrying out a comparison (840) to see whether the current value of the interval (n) is greater than the total number (M) of the elements of a permutation function (S_i) which states the positions of the spreading code (g_n) of a set (G_i) of spreading codes that is to be used for decoding the encrypted digital data stream, wherein alternatively the following takes place:

if the comparison has a positive result:

resetting of the interval (n) to "1";

if the comparison has a negative result:

equating the current spreading code (g_n) with the spreading code (g_{p_n}) that stands at the position (p_n) stipulated by the permutation function (S_i),

~~characterized in that it wherein the system has means for~~

carrying out encryption,

carrying out decoding of a digital data stream that was transmitted encrypted.

9. (Cancelled)